

Agilent Ref: 10021090-1  
United States Application Serial No. 10/693,064

### **RESPONSE**

In view of the following remarks, the Examiner is respectfully requested to withdraw the rejections and allow Claims 1-26 and 35-42 the only claims pending and currently under examination in this application.

#### **Formal Matters**

Claims 1-26 and 35-42 are pending after entry of the amendments set forth herein

Claims 1-26 were examined. Claims 1-4, 6-11, 13-18, and 21-26 were rejected and claims 5, 12, 19, and 20 were objected to. No claims were allowed.

Claims 27-34 have been canceled.

Claims 1 and 45 have been amended. Support for the amendment can be found in the claims as originally filed and throughout the specification at, for example: page 3, lines 3-21, Figure 3, and original claim 4.

New Claims 35-42 have been added. Support for the new claims can be found in the claims as originally filed and throughout the specification at, for example: Claim 35: original Claim 1 and page 2, lines 10-15; Claim 36: original Claim 3; Claim 37: original Claim 5; Claim 38: original Claim 6; Claim 39: original Claim 7; Claim 40: original Claims 1 and 24, and page 10, lines 17-25; Claim 41: original Claims 1 and 6, and page 10, lines 17-25; and Claim 42: original Claims 1 and 7, and page 10, lines 17-25.

As the above amendments introduce no new matter to the application, their entry is respectfully requested.

#### **Allowable Subject Matter**

The Applicants express gratitude in the Examiner's indication that claims 5, 12, and 19-20 are directed to allowable subject matter.

#### **Rejection under 35 U.S.C. §102**

Claims 1-4, 6-11, 13, 15, 17, and 21-25 have been rejected under 35 U.S.C. §102 for allegedly being anticipated by Bloom et al. (U.S. Patent No. 6,863,833). In

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view of the amendments to the claims and the remarks made herein, this rejection is respectfully traversed.

In the spirit of expediting prosecution and without conceding as to the correctness of the rejection, claim 1 has been amended to incorporate the second region limitation of claim r.

In the office action, the oxide layer on region 18 of Fig. 1A was equated by the Examiner to the second region of claim 4. However, the second region as recited in the claim is one that both laterally surrounds the first region and has an upper surface that is substantially flush with the bottom surface of the first region. Any oxide layer present on element 18 of Fig. 1A will have this recited structure, i.e., a it will not laterally surround the first region and have an upper surface that is substantially flush with the bottom surface of the first region.

Therefore, claims 1-4, 6-11, 13, 15, 17, and 21-25 are not anticipated under 35 U.S.C. §102 by U.S. Patent No. 6,863,833, and the Applicants respectfully request that this rejection be withdrawn.

**Rejection under 35 U.S.C. §103**

Claims 14, 16, 18, 24, and 26 have been rejected under 35 U.S.C. §103 as being unpatentable for allegedly being rendered obvious by Bloom et al., (U.S. Patent No. 6,863,833) in view of Fishman et al. (U.S. Patent Application 2003/0032946). In view of the remarks made herein this rejection is respectfully traversed.

As noted above, claim 1 has been amended to incorporate the second region limitation of claim 4. As reviewed above, nowhere in the 6,863,833 patent is a second region as claimed taught, or even suggested, since the oxide layer of the 6,863,833 patent which is equated by the office to the second region is actually present on element 18 of Fig. 1A. There is no teaching or suggestion in the 6,863,833 patent to provide a second region as claimed that both laterally surrounds

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the first region and has an upper surface that is substantially flush with the bottom surface of the first region. As the supplemental Fishman reference (2003/0032946) has been cited for teaching microfluidic leads, this reference does not make up the deficiencies in the primary reference.

Accordingly, claims 14, 16, 18, 24, and 26 are not obvious under 35 U.S.C. §103 over U.S. Patent No. 6,863,833 in view of U.S. Patent Application 2003/0032946 and this rejection be withdrawn.

**New Claims 35 to 42**

New claims 35 to 42 have been added. New Claims 35 to 42 are directed to an apparatus for the construction of one of a microscale and nanoscale device as recited in original Claim 1, wherein the third insulator material provides for low-capacitance across the top surface of the diaphragm (Claims 35-39); or further comprising a microfluidic lead, the lead being disposed at a location comprising one of beneath the third region, and atop the third region (Claim 40); or further comprising a fifth material, the fifth material comprising a bottom layer portion of the diaphragm (Claim 41); or further comprising a sixth region comprising a sixth insulator material disposed atop the substrate region (Claim 42). Since, none of the cited references teach or suggest a device comprising such additional elements, new Claims 25 to 39 and patentable in view of the cited references.

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**Conclusion**

The Applicants respectfully submit that all of the claims are in condition for allowance, which action is requested. The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-1078.

Respectfully submitted,

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